Era University

<u>Department of Medical Education & Technology</u> <u>Thesis Protocol Writing Workshop</u>

Session

Basic Concepts in research - I:

Logic-Reasoning in Science; Uncertainty-Probability; Variability- SD; Types of Research;

Basic Concepts in research - II:

Measurement scales; Constants-variables; Error-Bias, Validity-Consistency-Reliability.

Literature Search:

Problem statement; rational, novelty & application;

Research Question & Hypothesis:

Primary and Secondary Objectives; Inclusion- Exclusion criteria.

Study Designs:

Lab & Animal experimentation settings; Clinical trials; Population based observational studies.

Sampling and Sample Size:

Advantages of Sampling Techniques, Probability and Non-Probability Sampling Methods; Calculation of Sample Size.

Ethics in Research:

Reference writing:

Designing and Standardizing Research Tools:

Interview & Questionnaire;

Selecting Test of Significance:

Testing of Hypothesis; Type-I & Type-II Errors; Parametric and non-Parametric tests.

Protocol Writing Structured Format:

Protocol writing demonstration:

Open hour